# Project Nomination and Evaluation Criteria Coastal Impact Assistance Program (CIAP)

- 1. Project Title:
  - East Grand Terre Island Restoration
- 2. Entity/Individual Nominating the Project:
  - Andrew MacInnes, Plaquemines Parish Coastal Zone Administrator
  - Plaquemines Parish Coastal Zone Advisory Committee
- 3. Contact Information:
  - Andrew MacInnes 106 Avenue G, Belle Chasse, LA 70037 (504) 297-5320 andrew macinnes@cmaaccess.com

4. Total CIAP Funds Requested: \$25,575,397.00

5. Parish CIAP Funds Requested: To Be Determined

6. State CIAP Funds Requested: To Be Determined

7. Infrastructure Funds Requested: To Be Determined

- 8. Description and Location of Project:
  - The project is located in the lower Barataria hydrologic basin as part of the barrier shoreline in southwest Plaquemines Parish, Louisiana. The island lies between Pass Abel and West Grand Terre Island to the west and Quatre Bayou Pass and Pointe Cheniere Ronquille to the east. The proposed project seeks to implement the restoration measures as designed and engineered through the CWPPRA program. The project has already received approximately \$2.3M in design funding and it recently just missed the cutoff to receive construction funding of approximately \$27M.

## Summary Benefits

- Restore 2.8 miles barrier shoreline through construction of +6 foot dune with advanced nourishment.
- Construct 450-acre marsh platform north of and contiguous to the beach and dune fill to provide foundation for continued shoreline rollover and retreat.
- Create and restore 620 acres of barrier island immediately post-construction
- Provide 335 net acres at TY20

## **Project Goals and Strategies**

- The goals of this project are to repair breaches and tidal inlets in the shoreline, reinforce the existing shoreline with sand and plug/repair the growing tidal inlets through the shoreline. The design approach is to maximize surface area per planform unit volume for island stabilization and dune, supratidal (i.e., swale), and intertidal marsh creation by preventing a breach (i.e., tidal inlet) with a 20-year or lesser storm event.
- Project strategies are 1) to construct 71 acres of dune platform to +6 feet NAVD-88, 82 acres of beach, and 450 acres of back barrier marsh on East Grand Terre, 2) to place marsh creation material at an elevation of +2.3 feet NAVD-88 and allow it to settle and dewater down to the intertidal range, 3) to utilize effective planting schemes and sand fencing to maximize vegetative coverage and survival along with providing increased dune stabilization, 4) create tidal ponds and creeks and ensure tidal exchange by degrading retention dikes that do not naturally degrade.

## **Project Features**

- The recommended plan includes beach and dune fill to address the severity of erosion along the gulf-front shoreline and to repair shoreline breaches. The beach and dune fill template is approximately 15,000 ft long with a 90-foot wide dune design section to +6 feet with 1:30 back- and 1:45 fore-slopes. Advanced fill is distributed non-uniformly to account for varying longshore transport rates along the island. The maximum constructed berm width is 195 feet. Total in place beach and dune fill volume is estimated at 1,576,650 cy. The recommended plan also includes a 450-acre marsh platform in the southern portions of Bays Melville and Dispute with construction elevation of +2.3 feet. The required fill volume is approximately 1,732,000 cy. Additionally, project features include extensive vegetative plantings and sand fencing to reduce sediment losses and retention dike gapping to optimize marsh platform performance.

## 9. Project Type:

- Conservation, restoration and protection of coastal area, including wetlands.
- Mitigation of damage to fish, wildlife and natural resources.
- Planning assistance and administrative costs of CIAP compliance

## 10. Project Justification:

- The proposed project is strategically very important within the context of barrier shoreline restoration. As identified through the Coast 2050 and CWPPRA program, barrier islands are among the highest ranked features to be restored regarding area of need. Multiple other sections of the Plaquemines Parish barrier

shoreline are being designed or constructed in a concerted effort to methodically and efficiently rebuild the degrading island segments. Also, millions of dollars and years of time have already been dedicated to the project as it has progressed through the CWPPRA program.

- 11. Project Cost Share (Types and amounts of non-CIAP funds proposed, if any):
  - Approximately \$2.3M has already been spent on the proposed project through the CWPPRA program. All engineering and design work has been completed and the project is ready for construction. Plaquemines Parish would like to cost-share the project with DNR (amount and/or percentage to be determined).